

ESPC Contract Risk/Responsibility Matrix

RESPONSIBILITY/DESCRIPTION	ESCO PROPOSED APPROACH	AGENCY ASSESSMENT
Financial		
<p><u>Interest rates:</u> Neither the ESCO nor the agency has significant control over prevailing interest rates. During all phases of the project, interest rates will change with market conditions. Higher interest rates will increase project cost, financing/project term, or both. The timing of the Delivery Order signing may impact the available interest rate and project cost. Clarify when the interest rate is locked in, and if it is a fixed or variable rate.</p>		
<p><u>Energy prices:</u> Neither the ESCO nor the agency has significant control over actual energy prices. For calculating savings, the value of the saved energy may either be constant, change at a fixed inflation rate, or float with market conditions. If the value changes with the market, falling energy prices place the ESCO at risk of failing to meet cost savings guarantees. If energy prices rise, there is a small risk to the agency that energy saving goals might not be met while the financial goals are. If the value of saved energy is fixed (either constant or escalated), the agency risks making payments in excess of actual energy cost savings.</p>		
<p><u>Construction costs:</u> The ESCO is responsible for determining construction costs and defining a budget. In a fixed-price design/build contract, the agency assumes little responsibility for cost overruns. However, if construction estimates are significantly greater than originally assumed, the ESCO may find that the project or measure is no longer viable and drop it. In any design/build contract, the agency loses some design control. Clarify design standards and the design approval process (including changes) and how costs will be reviewed.</p>		

<p><u>M & V costs:</u> The agency assumes the financial responsibility for M & V costs directly or through the ESCO. If the agency wishes to reduce M & V cost, it may do so by accepting less rigorous M & V activities with more uncertainty in the savings estimates. Clarify what performance is being guaranteed (equipment performance, operational factors, energy cost savings) and that the M & V plan is detailed enough to satisfactorily verify it.</p>		
<p><u>Delays:</u> Both the ESCO and the agency can cause delays. Failure to implement a viable project in a timely manner costs the agency in the form of lost savings, and can add cost to the project. Clarify schedule and how delays will be handled.</p>		
<p><u>Major changes in facility:</u> The agency (or Congress) controls major changes in facility use, including closure. Clarify responsibilities in the event of a premature facility closure, loss of funding, or other major change.</p>		
<p>Operational</p>		
<p><u>Operating hours:</u> The Agency generally has control over the operating hours. Increases and decreases in operating hours can show up as increases or decreases in "savings" depending on the M & V method (e.g. operating hours times, improved efficiency of equipment vs. whole building, utility analysis). Clarify if operating hours are to be measured or stipulated and what the impact will be if they change. If the equipment loads are stipulated, the baseline should be carefully documented and agreed to by both parties.</p>		
<p><u>Load:</u> Equipment loads can change over time. The agency generally has control over hours of operation, conditioned floor area, intensity of use (e.g. changes in occupancy or level of automation). Changes in load can show up as increases or decreases in "savings" depending on the M & V method. Clarify if equipment loads are to be measured or stipulated and what the impact will be if they change. If the equipment loads are stipulated, the baseline should be carefully documented and agreed to by both parties.</p>		

<p><u>Weather:</u> A number of energy efficiency measures are affected by weather. Neither the ESCO nor the agency has control over the weather. Changes in weather can increase or decrease "savings" depending on the M & V method (e.g. equipment run hours times efficiency improvement vs. whole building utility analysis). If weather is "normalized" actual savings could be less than payments for a given year, but will "average out" over the long run. Weather corrections to the baseline or ongoing performance should be clearly specified and understood.</p>		
<p><u>User participation:</u> Many energy conservation measures require user participation to generate savings (e.g. control settings). The savings can be variable and the ESCO may be unwilling to invest in these measures. Clarify what degree of user participation is needed and utilize monitoring and training to mitigate risk. If performance is stipulated, document and review assumptions carefully and consider M & V to confirm the capacity to save (e.g. confirm that the controls are functional).</p>		
<p>Performance</p>		
<p><u>Equipment performance:</u> Generally the ESCO has control over the selection of equipment and is responsible for its proper installation and performance. Generally the ESCO has responsibility to demonstrate that the new improvements meet expected performance levels including standards of service and efficiency. Clarify who is responsible for initial and long-term performance, how it will be verified, and what will be done if performance does not meet expectations.</p>		
<p><u>Operations:</u> Responsibility for operations is negotiable, and it can impact performance. Clarify how proper operation will be assured. Clarify responsibility for operations and implication of equipment control.</p>		

<p><u>Maintenance & Repair:</u> Responsibility for maintenance and repair is negotiable, however it is often tied to performance. Clarify how long-term maintenance and repair will be assured, especially if the party responsible for long-term performance is not responsible for maintenance. Clarify who is responsible for ECM overhaul, component or equipment repair required to maintain operational performance throughout the contract term.</p>		
<p><u>Equipment Replacement:</u> Responsibility for replacement of contractor-installed equipment is negotiable, however it is often tied to ECM performance. Clarify who is responsible for replacement of failed components or equipment throughout the term of the contract. Specifically address potential impacts on performance due to equipment failure. Life of equipment is critical to ECM performance during the contract term. Specify equipment life expected for all installed equipment and specify warranties proposed for the installed ECMs.</p>		